for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

Amendment

In the Application:

D1

Please insert the attached sheet of FIG. 1A, FIG. 1B, FIG. 1C, and FIG. 1D at the end of the application.

In the Specification:

Please insert the following heading after paragraph [0019] and above the heading "DETAILED DESCRIPTION OF THE INVENTION":

D2

BRIEF DESCRIPTION OF THE DRAWINGS

Please insert under the heading "BRIEF DESCRIPTION OF THE DRAWINGS" the following new paragraph:

D3

FIGS. 1A, 1B, 1C, and 1C are voltage pulse protocols used to assess the potency and kinetics of inhibition of the Na^+ channels by the compounds as follows: FIG. 1A: IV-curves, FIG. 1C: steady-state inactivation, FIG. 1B: repriming kinetics, and FIG. 1D: time course of binding.

Please substitute paragraph [0104] at page 20 with the following paragraph:

D4

The following voltage pulse protocols **A**, **B**, **C**, and **D** are used to assess the potency and kinetics of inhibition of the Na^+ channels by the compounds (FIGS. 1A-1D). Current-voltage relationship (IV-curve), protocol **A**, is used to report the voltage at which the maximal inward Na^+ current is achieved. This voltage is used throughout the experiment as testing voltage, V_t. The steady-state inactivation (or, availability) curve, protocol **C**, is used to get the voltage at which almost complete

(≥95%) inactivation of Na^+ channels occurs; it serves as voltage for conditioning prepulse, V_c, throughout the experiment. Protocol **B** reports how fast the channels recover from inactivation at hyperpolarized voltages. This permits us to set up the duration of the hyperpolarization gap which is used in measurement of the kinetics of binding of compounds to inactivated Na^+ channels (protocol **D**). Channel repriming under control conditions is fast (≥90% recovery during first 5-10 ms). If a drug substantially retards the repriming process, then it becomes possible (protocol **D**) to accurately measure the kinetics of binding of the inhibitor to inactivated channels as well as the steady-state affinity (k_+ and K_i). To estimate k_+ values, the reduction in peak currents in successive trials with varying pre-pulse duration is plotted as a function of pre-pulse duration and the time constant (τ) measured by mono-exponential fit. A plot of $1/\tau$ as a function of antagonist concentration then allows calculating of the macroscopic binding rates of the antagonists. To determine K_i values the partial inhibition curves measured by fractional responses in steady-state are fitted with the logistic equation:

$$I/I_{control} = 1/(1 + ([antagonist]/K_i)^p), \qquad \text{Eq. 2}$$

where $I_{control}$ is the maximal Na^+ current in the absence of antagonist, [antagonist] is the drug concentration, K_i is the concentration of antagonist that produces half maximal inhibition, and p is the slope factor.